

WHAT IS CLAIMED IS:

1. A method of optimizing performance of a database management system, the method comprising:
reconstructing a plurality of tables from a summary table, the summary table containing a summarization of data of the plurality of tables;
storing the plurality of tables into memory;
selectively manipulating the data within the plurality of tables; and
modifying the summary table based upon the manipulating step.
2. The method of claim 1, wherein the summary table in the reconstructing step is stored on a solid state disk.
3. The method of claim 1, further comprising:
updating a transaction log that records modifications to the summary table, the transaction log being stored on a solid state disk.
4. The method of claim 1, wherein the data of the plurality of tables include communication connection information of a satellite communication system.
5. The method of claim 1, further comprising:
storing a portion of the plurality of tables in a RAID (Redundant Array of Independent Disks) array.
6. A database system, comprising:
a processor configured to reconstruct a plurality of tables from a summary table, the summary table containing a summarization of data of the plurality of tables; and
a memory configured to store the plurality of tables,
wherein the processor selectively manipulates the data within the plurality of tables, and modifies the summary table in response to the manipulated data.
7. The system of claim 6, further comprising:
a solid state disk configured to store the summary table.
8. The system of claim 7, wherein the processor updates a transaction log that records modifications to the summary table, the transaction log being stored on a solid state disk.

9. The system of claim 6, wherein the data of the plurality of tables include communication connection information of a satellite communication system.

10. The system of claim 6, further comprising:

a RAID (Redundant Array of Independent Disks) array configured to store a portion of the plurality of tables.

11. A system for optimizing performance of a database management system, the system comprising:

means for reconstructing a plurality of tables from a summary table, the summary table containing a summarization of data of the plurality of tables;

means for storing the plurality of tables into memory;

means for selectively manipulating the data within the plurality of tables; and

means for modifying the summary table based upon the manipulated data.

12. The system of claim 11, wherein the summary table is stored on a solid state disk.

13. The system of claim 11, further comprising:

means for updating a transaction log that records modifications to the summary table, the transaction log being stored on a solid state disk.

14. The system of claim 11, wherein the data of the plurality of tables include communication connection information of a satellite communication system.

15. The system of claim 11, further comprising:

means for storing a portion of the plurality of tables in a RAID (Redundant Array of Independent Disks) array.

16. A computer-readable medium carrying one or more sequences of one or more instructions for optimizing performance of a database management system, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

reconstructing a plurality of tables from a summary table, the summary table containing a summarization of data of the plurality of tables;

storing the plurality of tables into memory;

selectively manipulating the data within the plurality of tables; and
modifying the summary table based upon the manipulating step.

17. The computer-readable medium of claim 16, wherein the summary table in the reconstructing step is stored on a solid state disk.

18. The computer-readable medium of claim 16, further comprising computer-executable instructions for causing the one or more processors to perform the step of:

updating a transaction log that records modifications to the summary table, the transaction log being stored on a solid state disk.

19. The computer-readable medium of claim 16, wherein the data of the plurality of tables include communication connection information of a satellite communication system.

20. The computer-readable medium of claim 16, further comprising computer-executable instructions for causing the one or more processors to perform the step of:

storing a portion of the plurality of tables in a RAID (Redundant Array of Independent Disks) array.

21. A memory for storing information to manage connection resources of a satellite communication system, comprising a data structure including:

a connections records table for storing data relating to capacity allocations of the satellite communication system;

an uplink capacity table for storing data relating to capacity assignments of an uplink of the satellite communications system;

a downlink capacity table for storing data relating to capacity assignments of a downlink of the satellite communications system; and

a connection summary table for storing a summary of the connections records table, the uplink capacity table, and the downlink capacity table, wherein the connection summary table is transferred to a solid state disk for storage.

22. The memory of claim 21, wherein the connections records table comprises:

- a connection identifier field for identifying a connection among a plurality of connections in the satellite communication system;
- a service type field for specifying user service;
- a record type field for specifying type of record;
- an origin address field for storing a source address of a satellite terminal that generates data to be transmitted over the satellite communication system;
- a destination address field for storing a destination address of a satellite terminal that is to receive the data;
- an allocation time field for storing allocation time of the connection;
- a deallocation time field for storing deallocation time of the connection;
- a forward slots field for indicating frame slots associated with the plurality of connections in a forward direction; and
- a reverse slots field for indicating frame slots associated with the plurality of connections in a reverse direction.

23. The memory of claim 21, wherein the uplink capacity table comprises:
an uplink cell identifier field for storing an uplink cell identification of the satellite communication system;

- a service type field for specifying user service;
- a channel type field for indicating channel type of a connection among a plurality of connections;
- a service provider identifier field for identifying a service provider associated with at least one of the capacity assignments;
- a channels field for storing the number of the plurality of connections; and
- an inuse channels field for storing the number of connections that are in use.

24. The memory of claim 21, wherein the downlink capacity table comprises:

- an downlink cell identifier field for storing a downlink cell identification of the satellite communication system;

a service type field for specifying user service;

a channel type field for indicating channel type of a connection among a plurality of connections;

a service provider identifier field for identifying a service provider associated with at least one of the capacity assignments;

a channels field for storing the number of the plurality of connections; and

an inuse channels field for storing the number of connections that are in use.

25. The memory of claim 21, wherein the connection summary table comprises:

a connection identifier field for identifying a connection among a plurality of connections in the satellite communication system;

an origin identifier field for specifying a satellite terminate that initiates establishment of the connection;

a destination identifier field for specifying a satellite terminate that terminates the established connection;

an origin address field for storing a source address of the satellite terminate that initiates establishment of the connection;

a destination address field for storing a destination address of the satellite terminate that terminates the established connection;

a service type field for specifying user service;

a forward slots field for indicating frame slots associated with the plurality of connections in a forward direction;

a reverse slots field for indicating frame slots associated with the plurality of connections in a reverse direction;

a forward channels field for indicating the plurality of connections in the forward direction; and

a reverse slots field for indicating the plurality of connections in the reverse direction.